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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,100	07/03/2001	Takeshi Ishida	826.1734	1690
21171 7590 10/22/2007 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER SORRELL, ERON J	
			ART UNIT 2182	PAPER NUMBER
			MAIL DATE 10/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/897,100

Applicant(s)

ISHIDA ET AL.

Examiner

Eron J. Sorrell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/6/07 have been fully considered but they are not persuasive. The applicant argues:

1) The 101 rejection of claims 9-12 should be withdrawn because claim contains the feature of "a plurality of service servers each rendering a service via a network," and thus defines a useful machine or manufacture by identifying the physical structure of the machine or manufacture in terms of its hardware or hardware and software combination, and thus defines a statutory product (see 2nd paragraph of page 7 of applicant's remarks);

2) "Donaghue does not process request of low level service requirements when higher level requests are being processed. Donaghue col. 3 lines 15-25 merely discusses that each application has priority levels. **Not that the lower level service requests are still processed when the system is saturated,** (emphasis added)" (see lines 4-7 of page 8 of applicant's remarks).

3) "A feature of the claims is to prioritize service request in a system **that has a limited number of servers** by moving servers from one priority group to another (emphasis added). In the case where an adequate number of servers are

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available, there is no need to prioritize. Therefore, the combination of Choquier and Donaghue taken separately or in combination, fails to teach or suggest 'wherein the service request with a high service level requirement is preferentially processed while still processing service requests of a low service level requirement.'"

4) The cited references teach away from the combination and the resulting combination would not function because Choquier and Donaghue teaches handing transaction in an opposite manner (see last full paragraph of page 8 and paragraph bridging pages 9 and 10).

2. **As per argument 1, the Examiner disagrees.** Claim 9 is directed toward an service managing apparatus that **accommodates** a plurality of service servers (emphasis added). The apparatus is described as comprising two elements, namely a managing unit and an intermediate server shifting unit. At paragraph 163 of the instant specification, the applicant discloses the capabilities of the service managing server may be implemented as a program. Therefore, it is reasonable to construe that the units that comprise the service managing apparatus may be software modules, making the entire apparatus a collection of software modules, and thus software per se.

3. **As per argument 2, the Examiner disagrees.** There is no language in the claims that requires a situation in which the system is "saturated". At lines 50-52 of column 3, Donaghue teaches that all transactions at all priority levels are allowed to have there service goals met (meaning that all requests at all priority levels are processed).

4. **As per argument 3, the Examiner disagrees.** There is no language in the claims specifying the number of servers in the system or any language implying a limited number of servers. Again, at lines 50-52 of column 3, Donaghue teaches that all transactions at all priority levels are allowed to have there service goals met (meaning that all requests at all priority levels are processed).

5. **As per argument 4, the Examiner disagrees.** The Examiner has only relied on Donaghue to teach grouping servers by priority and handling processing transactions of all priorities. The Examiner has not relied on Donaghue to teach how the servers and transactions are paired. The teachings of Donaghue relied upon result in an improvement to the system of Choquier, not its destruction. The applicant is reminded that the test for

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obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references.

Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 9-12 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

8. Claim 9 is directed toward an apparatus however the elements that make up the apparatus can be reasonably construed as a software module or a software process. For example, the managing unit and server shifting unit can both be construed as software, thus making the entire apparatus software, per se. The same analysis holds for system claims 10-12.

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choquier et al. (U.S. Patent No. 5,951,694 hereinafter "Choquier") in view of Donaghue, Jr. (U.S. Patent No. 6,226,377 hereinafter "Donaghue").

11. Referring to program claims 1 and 7, method claim 6, machine readable medium claim 8, and apparatus claim 9, Choquier teaches a method, apparatus and program causing an information processing device (administration servers 134, see lines 4-12 of column 24) to execute a service managing method accommodating a plurality of service servers each rendering a service via a network in response to a service request from a client, and distributing the service request to the plurality of service servers (see lines 26-35 of column 23), said method comprising:

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managing the plurality of service servers by dividing the service servers to define a plurality of groups of service servers and dynamically shift service servers among the plurality of groups and render a service as a service quality of a group to which the shift is made (see lines 36-48 of column 23); and

reducing a load on a service server within any of the plurality of groups by using at least one service server with the lightest load as the service server within any of the plurality of groups, when the load on the service server within any of the plurality of groups increases, and a quality level to be rendered by any of the plurality of groups cannot be maintained (see lines 34-53 of column 24, wherein Choquier teaches determining when to add servers from one group experiencing high load from a group with a lower load).

Choquier fails to teach the service servers are grouped depending on quality levels of the rendered services into a high, low, and intermediate service groups, wherein the service request with a high service level requirement is preferentially processed while still processing service requests of a low service level requirement.

Donaghue teaches, in an analogous system, the service servers are grouped depending on quality levels of the rendered

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services into a high, low, and intermediate service groups (Donaghue teaches 1st, 2nd, and 3rd priority levels), wherein the intermediate group offers low level service during a normal time and reassigning servers between the server groups based upon the load and level of service (see lines 45-63 of column 8).

Donaghue further teaches the service request with a high service level requirement is preferentially processed while still processing service requests of a low service level requirement (see lines 15-55 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system and method of Choquier with the above teachings of Donaghue in order to more effectively utilize the available resources and maintain service level agreements as suggested by Donaghue (see lines 55-58 of column 1).

12. Referring to claim 2, Choquier teaches the plurality of service servers that are grouped comprise a storing unit storing information to which group each of the plurality of service servers belongs (see lines 21-27 of column 9).

13. Referring to claim 3, Donaghue teaches a service quality is the response time of the service server (see lines 44-52 of

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column 5). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system and method of Choquier with the above teachings of Donaghue for the same reasons as mentioned above in the rejection of claim 1.

14. Referring to claim 4, Choquier teaches, the method further comprises recording and managing a log of service requests (see lines 33-46 of column 10); and generating a schedule for each date or day of the week based on the log recorded in the log managing step, and changing a way of dividing the service servers into groups according to a generated schedule (see lines 27-35 of column 23).

15. Referring to claim 5, Choquier teaches each of the plurality of service servers executes a load measuring step measuring a load value that a local service requires to process a service request; and teaches a server is shifted to a different group based on a load value of each service server, which is notified from the load measuring step.

Choquier fails to teach the service servers are grouped depending on quality levels of the rendered services into a high, low, and intermediate service groups.

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Donaghue teaches, in an analogous system, the service servers are grouped depending on quality levels of the rendered services into a high, low, and intermediate service groups (Donaghue teaches 1st, 2nd, and 3rd priority levels) and reassigning servers between the server groups based upon the load and level of service (see lines 45-63 of column 8).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system and method of Choquier with the above teachings of Donaghue for the same reasons as mentioned above in the rejection of claim 1.

16. Referring to claim 10 Choquier teaches a system providing services over at least one network, comprising:

service servers grouped according to services provided (see lines 36-48 of column 23), however fails to teach the service servers are grouped depending on quality levels or that the service request with a high service level requirement is preferentially processed while still processing service requests of a low service level requirement.

Donaghue teaches, in an analogous system, the service servers are grouped depending on quality levels of the rendered services into a high, low, and intermediate service groups

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(Donaghue teaches 1st, 2nd, and 3rd priority levels) and reassigning servers between the server groups based upon the load and level of service (see lines 45-63 of column 8). Donaghue further teaches the service request with a high service level requirement is preferentially processed while still processing service requests of a low service level requirement (see lines 15-25 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system and method of Choquier with the above teachings of Donaghue in order to more effectively utilize the available resources and maintain service level agreements as suggested by Donaghue (see lines 55-58 of column 1).

17. Referring to claims 11 and 12, Choquier teaches, a load shifting unit reducing a load on a selected server within any group of the service server wherein the load shifting unit reduces the load on the selected server by shifting a portion of the load from the selected server to at least one server having a lightest load (see lines 34-53 of column 24, wherein Choquier teaches determining when to add servers from one group experiencing high load from a group with a lower load).

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Donaghue teaches, in an analogous system, the service servers are grouped depending on quality levels of the rendered services into a high, low, and intermediate service groups (Donaghue teaches 1st, 2nd, and 3rd priority levels) and reassigning servers between the server groups based upon the load and level of service (see lines 45-63 of column 8).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system and method of Choquier with the above teachings of Donaghue for the same reasons as mentioned above in the rejection of claim 1.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated

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from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EJS

October 4, 2007



KIM HUYNH
SUPERVISORY PATENT EXAMINER

10/12/07